

Notice of Allowability

Application No.

10/055,890

Examiner

Audrey Y. Chang

Applicant(s)

HONG, HYUNG KI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on December 13, 2005.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/618,447.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

Remark

- This Office Action is in response to applicant's amendment filed on December 13, 2005, which has been entered into the file.
- By this amendment, the applicant has amended claims 1-2, and 7 and has newly added claims 13-22.
- Claims 1-22 remain pending in this application.

Response to Arguments

1. Applicant's *admission* of submitting priority document to the parent applicant 09/618,447 on July 18, 2000 is noted.
2. In response to applicant's arguments "The examiner seems to believe that the pixels of display device must generate picture for one eye (for instant left eye) of one color and generate picture for the other eye in a complementary color when the device is in stereoscopic view. Applicant respectfully disagrees. All that is necessary for the stereoscopic viewing is that left-eye picture is only viewed by the left eye (regardless of the color) and right-eye picture is only viewed by the right eye (regardless of the color)" (Remark pages 2-3)", the examiner respectfully disagrees for the reasons stated below. While it is true the general condition for stereoscopic view is for the left eye picture only viewed by the left eye and the right eye picture only viewed by the right eye, *applicant has not disclosed any other ways* in combination with the color barrier to achieve such by having "the pixels of display device generates picture for one eye (for instant left eye) of one color and generate picture for the other eye (for instance the right eye) in a complementary color". These features therefore are necessary for **enabling** the stereoscopic view.

Reasons For Allowance

3. The following is an examiner's statement of reasons for allowance: of the prior art references considered none has disclosed a *multi-mode stereoscopic image displaying apparatus* and method for displaying a multi-mode stereoscopic image wherein the apparatus comprises a *display device* having a *first pixels and second pixels for displaying mixed image signal* such that each of the *first pixels* having at least *one sub-pixel cell coded with a first color* used for creating *left-eye picture* and at least *one other sub-pixel cell coded with color different from first color* used for creating *right-eye picture* and each of the *second pixels* having at least *one sub-pixel cell coded with first color* for creating the *right-eye picture* and at least *one other sub-pixel cell* each coded with the *color different from the first color* used for creating the *left-eye picture*. The apparatus further comprises a *variable color barrier unit* having first and second *variable filters* adjacent and alternative to each other such that sub-pixels cells of each of the first and second pixels are aligned with the first and second variable filters in the said *manner set forth in the claims*. The apparatus also comprises mode conversion controller for generating a mode control signal for *selecting between stereoscopic mode and a plane mode*, a voltage source and a switch for applying a *first voltage* from the voltage source to the *first variable filters* to make the first variable filters *transmit light of first color and shutting off light of other colors* and simultaneously applying a *second voltage* to second variable filters to make the *second variable filters transmit light of other colors and shutting off light of first color* when said switch is at *stereoscopic mode* and for applying a *third voltage* to both the first and second variable filters such that light of all colors are transmitted by the all the filters when the switch is in the *plane mode*. The first, second and third voltages are different from each other.

In a different embodiment (claim 7), a *light-scattering device* is disposed between the display device and the color barrier such that in the *stereoscopic mode*, the light scattering device *transmits* light from display device to color barrier *without scatter* in response to a *first voltage* so that the first color

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from the first pixels and the color different from the first color from the second pixels reaches *left eye* and the first color from the *second* pixels and the color different from the first color from first pixels reach the *right eye* and the light scattering device *scatters* light from the display device to the color barrier in response to a *second voltage* in a *plane mode* so that first color and other colors from both the first and second pixels reach both left and right eyes of the observer. The first and second voltages are different from each other.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

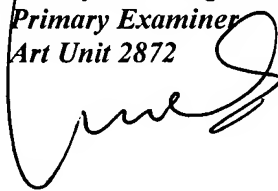
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Audrey Y. Chang, Ph.D.
Primary Examiner
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A. Chang, Ph.D.